

MASLOV, V.

Scattering problem in quasi-classical approximation. Dokl. AN SSSR
151 no.2:306-309 J1 '63. (MIRA 16:7)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
Predstavleno akademikom N.N.Bogolyubovym.
(Scattering (Physics))

KAGAN, YU.; MASLOV, V. A.

"Mossbauer effect in monatomic and diatomic cubic lattices. Zhur.
eksp. i teor. fiz. 41 no.4:1296-1303 O '61. (MIRA 14:10)
(Crystal lattices)

L 12793-63

ENP(q)/BDS/ENT(m)

AFETC/ASD

JU

ACCESSION NR: AP3000778

8/0070/63/008/003/0437/0439 60

AUTHOR: Zhinskaya, N. V.; Kir'yashkina, Z. I.; Maslov, V. A. 59

TITLE: Growth of monocrystals of germanium and silicon alloys by vertical-zone recrystallization 27 27

SOURCE: Kristallografiya, v. 8, no. 3, 1963, 437-439

TOPIC TAGS: Ge-Si alloys, vertical-zone recrystallization, seed crystals, crystal growth, single crystals

ABSTRACT: The authors prepared polycrystalline ingots of alloys of desired composition by fusing mixtures of the two constituents in a quartz crucible (evacuated) and then immersing a quartz test tube, open end downward, almost to the bottom of the crucible. The system was then filled with hydrogen under pressure (about 200 mm of mercury), and seed crystals of pure germanium, properly oriented, were used to induce vertical-zone recrystallization. These seed crystals were cut along the [111] and [110] directions. The setup for the experiment is shown in Fig. 1. (see Enclosure 1). The experiments showed that alloys with 0.5% (atomic) silicon could be obtained in the form of a single crystal after one or two recrystallizations. Single crystals with 1% silicon took two or three recrystallizations,

Card 1/1 16

L 12793-63

ACCESSION NR: AP3000778

and 3% silicon took four of five. Rotation of the seed crystal generally enhanced the chances of single crystals forming. The studies showed that crystallographic orientation of the seed crystal has little effect on the formation of single crystals. However, the largest single crystals were obtained when growth was induced in the [110] direction. Single crystals of alloys containing up to 3.2% silicon were grown to sizes 3 to 7.5 mm in diameter and 10 to 60 mm in length. The authors conclude that the production of alloys with higher silicon content will require better stabilization of temperature conditions during growth and slower movement of the fused zone along the crystal. Orig. art. has: 2 figures.

ASSOCIATION: Saratovskiy gosudarstvennyy universitet im. N. G. Cherny'shevskogo
(Saratov State University)

SUBMITTED: 15May61

DATE ACQ: 21Jun63

ENCL: 01

SUB CODE: 00

NO REF SOV: 002

OTHER: 000

Card 2/12

MASLOV, Vyacheslav Andrianovich; LUKOVITSEV, A.A., inzh.; red.; PETUKHOV, P.Z., doktor tekhn.nauk, red.; RUDIN, S.I., inzh., red.; SUSTAVOV, M.I., inzh., red.; KHRISANOV, M.I., kand.tekhn.nauk, red.; SARAFANNIKOVA, G.A., red.izd-va; MARCHENIKOV, I.A., tekhn.red.

[Increasing labor productivity in assembling mechanical equipment]
Povyshenie proizvoditel'nosti truda na montazhe mekhanicheskogo
oborudovaniia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1960. 105 p. (Bibliotekha slesaria-montashnika, no.10).
(MIRA 14:2)

(Machine-shop practice)

MASLOV, V.A.

Circulation of alcohol in a column in the continuous distillation
of wine. Izv. vys. ucheb. zav.; pishch. tekhn. no.3:122-129 '60.
(MIRA 14:8)

1. Krasnodarskiy institut pishchevoy promyshlennosti, Kafedra
tekhnologii vinodeliya.
(Distillation)

MASLOV, V. A. ~~Eng~~ Tech Sci -- "Development of a method and apparatus for *the*
continuous distillation of wine for the production of ~~e~~ognac alcohol."
Krasnodar, 1961 (Min of Higher and Secondary Specialized Education UkSSR.
Kiev Technological Inst of Food Industry). (KL, 4-61, 198)

208
-  -

AGABAL'YANTS, G.G.; MASLOV, V.A.

Obtaining brandy alcohol by the method of continuous distillation.
Trudy KIPP no.22:188-195 '61. (MIRA 16:4)
(Brandy)

MASLOV, V.A.

Formation of new impurities during the continuous distillation
of wine. Trudy KIPP no.22:196-200 '61. (MIRA 16:4)
(Wine and winemaking) (Distillation)

MASLOV, V.A.

Alcohol movement in the column during continuous wine
distillation. Trudy KIPP no.22:201-207 '61. (MIRA 16:4)
(Distillation)

MASLOV, V.A.

Movement of impurities important in brandy making through the
column plates during the liquid and vapor phases. Trudy KIPP
no.22:208-223 '61. (MIRA 16:4)

(Distillation)

LITVAK, V.; MASLOV, V.

Practical coefficients of evaporation and rectification of admixtures
in the distillation with cognac apparatus. Prom.Arm. 5 no.12:35-38
D '62. (MIRA 16:2)

1. Yerevanskiy kon'yachnyy zavod (vor Litvak). 2. Krasnodarskiy
nauchno-issledovatel'skiy institut pishchevoy promyshlennosti (for
Maslov).

(Armenia--Brandy)

(Distillation apparatus)

MASLOV, V.A.

[New developments in the production of brandy spirit]
Novoe v proizvodstve kon'iachnogo spirta. Moskva,
TSentr. in-t nauchno-tekh. informatsii pishchevoi pro-
myshl., 1964. 66 p. (MIRA 18:5)

MASLOV, V.A.

Lithological and facial characteristics of Mendyn deposits and their
analogues in the western slope of the southern Urals. Vop. geomorf.
i geol. Bashk. no.1:71-79 '57. (MIRA 11:4)
(Ural Mountains--Geology, Stratigraphic) (Rocks, Sedimentary)

MASHAN, U.A.

9(5) PHASE 1 BOOK EXPLOITATION

0662/105

[illegible]

1958. 137 p. 75 copies printed.

ED.: V. V. Sidorov; Tech. Ed.: I. G. Sharf; Editorial Board: S. M. Kravce (Resp. Ed.), M. P. Mikryukov, I. S. Ogartnov, A. I. Olli, L. M. Rotanov, K. M. Timmerman, and A. P. Tyasova.

SUMMARY: The book is intended for petroleum geologists.

COVERAGE: This book contains papers on the petroleum geology of Bashkirya. These papers were originally read at a conference held in Ufa on December 23-25, 1957. Individual reports discuss the stratigraphy, lithology, geochemistry, tectonic structure, and oil-bearing capacities of the Devonian sediments in Bashkirya and adjacent regions. No references are given.

2. Stratigraphy of the Devonian Sediments of the Zapovednaya and Gribur'skaya Oblasts

Chibrikova, Ye. V. Results of Spore-Pollen Analysis of the Cills and Cilia
waters of Bashkiria

Il'vkin, D. V. Ashinakiye and Devlinskiye Surisee

Urris, M. A. — Formation Conditions of Eifelian, Givetian, and Lower Frasnian Sediments of Western Bashkiriya

Stalhov, D. V. Lithology, Reservoir Rocks, and Oil-bearing Potential of the Ferruginous Devonian Beds in the Paleontological-Subsponsible Regions

name, S. M. Formation Conditions of Tertiary Middle Devonian Series on the Western Flank of the Southern Urals

pluv., Y. A. Lithology and Facies Characteristics of the Upper Devonian

Reported on and sectioned from the Southern Ural
 G. I. G. I., and B. Ya. Polonskaya. Study of the Mineralogy and

Conditions of Sedimentation of Probable Petroliferous Devonian Beds
in Various Regions of Western Bashkirya

the Tectonics of Overlying and Underlying Beds

A. I. Romanov, Tectonics of Bashkirya at the Beginning of the Middle Devonian

Shilova, S. I. Tectonic Structure of the Devonian Sediments in the Vytyshskaya and Orenburgskaya Oolites

senko, G. S. -- Morphology of the Folds in the Zone Adjacent to the Marginal
upward of the Zilairsky Syncline in the ...

estimating the reproducing capacity of the Devonian and other sediments in Southern Shadrinsk

vinidov, N.A. Prospects of Oil Production From the Devonian Sediments of the Western Flank of the Southern Urals

LIBRARY: Library of Congress (T874.F9A5675)

10

1. The first part of the document is a list of names and titles, including "The Hon. Mr. Justice" and "The Hon. Mr. Justice".

MASLOV, V.A.

Formation of stylolitic sutures. Vop.geol.vost.okr.Rus.platf. 1
IUsk. Urala no.1:133-138 '58. (MIRA 12:4)
(Stylolites)

MASLOV, V. A. Cand Geol-Min Sci C- (diss) ^L "Lithology and ^{facies} environmental peculiarities of the Upper-Devonian carbon^{ate} deposits of the the western slope ^{of} ^{the Southern} ~~Urals~~ Ural^s." Ufa, 1959. 17 pp (Voronezh State Univ. Mining Geol Inst of the Bashkir Affiliate, Acad Sci USSR), 200 copies (KL, 46-59, 136)

MASLOV, V.A.

Special characteristics of the conditions governing the formation
of upper Frasnian sediments the western slope of the Southern Urals.
Vop. geol. vost. okr. Rus. platf. i IUzh. Urala no.4:68-79 '59.
(MIRA 14:6)

(Ural Mountains—Sediments(Geology))

MASLOV, V.A.

Characteristics of dolomites in upper Devonian sediments on the
western slope of the Southern Urals. Vop. geol. vost. okr. Rus.
platf. i Uzh. Urala no.4:80-84 '59. (MIRA 14:6)
(Ural Mountains--Dolomite)

KRAUZE, S.N.; MASLOV, V.A.

Epigenetic dolomites in lower Devonian sediments of the western slopes
of the Southern Urals. Vop. geol. vost. okr. Rus. platf. i IUzh.
Urala no.4:85-89 '59. (MIRA 14:6)
(Ural Mountains—Dolomite)

KRAUZE, S.H.; MASLOV, V.A.

Age of the Tashluy series in the Bashkirian portion of the
Western slope of the Urals and paleogeography of the middle
Devonian. Vop.geol.vost.okr.Rus.platf.1 IZh.Urala no.7:124-129
'60. (MIRA 14:10)
(Bashkiria--Geology, Stratigraphic) (Bashkiria--Paleogeography)

AUTHORS: Dushin, L. A., Maslov, V. A. SOV/57-58-8-34/37

TITLE: Test of a Porcelain Insulator for "Strong" Electrostatic Focusing Lenses in Linear Accelerators (Ispytaniye farforovogo izolyatora dlya elektrostatocheskikh linz "sil'noy" fokusirovki chastits v lineynykh uskoritelyakh)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1958, Nr 8, pp 1837 - 1838 (USSR)

ABSTRACT: The present investigations have led to a full accordance with the results found in reference 5 which was confined to the testing of porcelain rings of electrostatic generators. The number of breakdowns and the leakage current are a function of the time during which the lens is tested in vacuum under high tension, and upon the degree of evacuation during the mounting of the lens. At the beginning of the test run, at about 30 - 40 kV, strong breakdowns occur repeatedly which are accompanied by a gas separation from the surface of the insulator. As time proceeds the intensity and the number of breakdowns is reduced and the leakage current decreases. If the tension applied is increased, these phenomena recur, the electric strength, however, increases in the course of time. Within 48 hours the leakage current drops from its initial

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Test of a Porcelain Insulator for "Strong" Electro-
static Focusing Lenses in Linear Accelerators

SOV/57-58-8-34/37

value of $30\mu\text{A}$ at 50 kV to $4\mu\text{A}$ at 75 kV at the end of the test. A change of the sign of the high tension from plus to minus resulted in an increase of the leakage current from 4 to $70\mu\text{A}$ at 75 kV. This is explained by an increase of the self-emission of electrons from the electrode bridge which becomes negative at an inversion of the polarity. There are 2 figures and 6 references, 1 of which is Soviet.

ASSOCIATION: Khar'kovskiy fiziko-tekhnicheskii institut AN USSR (Khar'kov
Physical and Technical Institute, AS UkrSSR)

SUBMITTED: February 24, 1958

Card 2/2

AUTHORS: Vitkovskiy, M.N., Maslov, V.A.

32-24-4-20/67

TITLE: On Testing the Corrosion Resistivity of Aluminum in 98% Nitric Acid (Ob ispytaniyakh korrozionnoy stoykosti alyuminiya v 98%-noy azotnoy kislote)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 4, pp. 429-430 (USSR)

ABSTRACT: It is a disadvantage of the methods of investigation hitherto employed that they take from 100 to 200 hours. Experiments were carried out with boiling 98% nitric acid and with the aluminum types AB 2 and AD 1 in order to determine the velocity of corrosion. From results given in tables it may be seen that the corrosion velocity practically remained constant with time during 100 hours. This holds good for the two types of aluminum mentioned as well as for welding samples with 0.04-0.05% titanium. From the results obtained the conclusion is drawn that the period of investigation can be reduced to 50 hours, but that 25 hours e.g. cause such a low loss of weight that the accuracy of determination might suffer. The interesting statement was made that if samples

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On Testing the Corrosion Resistivity of
Aluminum in 98% Nitric Acid

32-24-4-20/67

are treated with a solution of 10% nitric acid + 7 g/l sodium fluoride before the investigation, this leads to a noticeable reduction of corrosion velocity in the 98% boiling nitric acid. As this "passivation" decelerates the corrosion velocity of aluminum by four times its amount in the course of the following treatment in 98% nitric acid, this treatment before corrosion tests is not recommended. There are 5 tables.

ASSOCIATION: Sumskey mashinostroitel'nyy zavod im. M.V. Frunze
(Sunny Machine Building Plant imeni M.V.Frunze)

1. Aluminum---Corrosion
2. Nitric acid---Corrosive effects
3. Corrosion research

Card 2/2

MASLOV, V.A., inzh.; GERMAN, V.T., inzh.

Resistance of welded joints in low-carbon steel to corrosion by
alkali solutions. Svar. proizv. no.8:36-37 Ag '62. (MIRA 15:11)

1. Sumskiy mashinostroitel'nyy zavod im. M.V.Frunze.
(Steel--Corrosion)

ACCESSION NR: AP4025737

8/0184/64/000/001/0028/0030

AUTHORS: Maslov, V. A. (Engineer); Ternyuk, M. I. (Engineer); German, V. T. (Engineer)

TITLE: Effect of deformation on the corrosion resistance of steel 18-8

SOURCE: Khimicheskoye mashinostroyeniye, no. 1, 1964, 28-30

TOPIC TAGS: steel, steel 18-8, die stamping, annealing, corrosion, acetic acid corrosion, nitric acid corrosion, corrosion resistance, corrosion rate, deformation, steel deformation

ABSTRACT: Caps were die cast with a 4% deformation from 1.5-mm thick sheets of steel 1Kh18N9T and 1Kh18N12M2T. One half of the caps were subjected to a repeat stamping with an additional deformation of the same magnitude. After each stamping one half of the samples were tempered by immersion in water following 5 minutes heating at 1050-1070C. The polished samples, 5 cm in diameter and 2 cm in height, were subjected to treatment with various concentrations of acetic or nitric acid. The results of corrosion tests of steel 1Kh18N12M2T in acetic acid showed that the corrosion rate of the original steel sheet amounted to 0.0016-0.0097 gm/m² hour for

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ACCESSION NR: AP4025737

acid concentrations of 5-98% within a temperature range of 20-80C. At boiling temperature there was a sharp rise in corrosion rate, with increased concentration of acid from 10 to 60%, while a further increase in acid concentration reduced the corrosion rate to 0.0292 gm/m² hour. The corrosion rate of samples subjected to one or two stampings was somewhat higher, amounting to 0.0018-0.0125 gm/m² hour. Here, too, the corrosion rate remained practically unchanged up to 80C. The tempered stamped samples showed a somewhat higher corrosion rate than the non-tempered. Corrosion tests of samples from steel 1Kh18N9T revealed an increased corrosion rate of the original steel sheet at higher acid concentrations and temperatures. Here, too, higher corrosion rates were observed in stamped samples, and still higher rates in stamped and tempered. Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: ML

NO REF SOV: 003

OTHER: 000

Card 2/2

ACCESSION NR: AP/013295

S/0135/64/000/002/0033/0034

AUTHORS: Maslov, V. A. (Engineer); German, V. T. (Engineer)

TITLE: Corrosion resistance of stainless steel welds in some acids

SOURCE: Svarochnoye proizvodstvo, no. 2, 1964, 33-34

TOPIC TAGS: stainless steel, steel, corrosion stability, welded connection, weld corrosion stability, stainless steel weld, welding, steel acid corrosion, 1Kh18N9T steel, Kh18N12M3T steel, arc welding, EA-400/10 electrode, corrosion test

ABSTRACT: A short report is presented on the results obtained in corrosion testing of butt-welded stainless steels 1Kh18N9T and Kh18N12M3T. Sheets 6 mm thick were arc-welded by EA-400/10 electrodes 4 mm in diameter. Samples 20 x 20 x 5 mm were cut out of the welded connections and tested in acids for general and intergranular corrosion. The results were evaluated according to the loss of metal weight after the testing period. The MA test for intergranular corrosion (not described in the text) showed that these steels are satisfactorily resistant to corrosion. The general tests showed that the velocity of steel and welded connection corrosion in acids remained practically constant at 20-60C, not exceeding 0.0090 g/m²·hr. The

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ACCESSION NR: AP4013295

samples retained their metallic luster after testing, and the boundaries of the seams were not revealed. Orig. art. has: 2 tables.

ASSOCIATION: Sumskoy mashinostroitel'nyy zavod im. M. V. Frunze (Sumsy* Machine Construction Plant)

SUBMITTED: 00

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: ML

NO REF SOV: 000

OTHER: 000

Card 2/2

MASLOV, V.A., inzh.; SEMENOVA, L.A., inzh.

Corrosion resistance of welded, 08Kh13 steel, joints. Svar.proizv.
no.2:34-37 F '64. (MIRA 18:1)

1. Sumskoy mashinostroitel'nyy zavod im. M.V.Frunze.

SAPIRO, L.S.; ISAYENKO, Yu.A.; MASLOV, V.A.; ZOLOTAREVSKIY, D.B.

Causes of porosity in joints welded under assembling conditions.
Stroi. truboprov. 9 no.4:13-14 Ap '64. (MIRA 17:9)

1. Kustovoy otдел svarki Donetskogo soveta narodnogo khozyaystva
(for Sapiro, Isayenko, Maslov). 2. Donetskii politekhnicheskii in-
stitut (for Zolotarevskiy).

L 3270-66 EMT(m)/EPF(c)/EPF(n)-2/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c)
TJP(c) MJW/JD/WW/HM/RW/JG/WB

ACC NR. AP5025611

UR/0135/65/000/010/0032/0034
621.791.052.016:669.15-194

AUTHOR: Maslov, V. A. (Engineer); Semenova, L. A. (Engineer)

TITLE: Corrosion resistance of the welded joints of OKh13 (EI496) chromium steel in certain media

SOURCE: Svarochnoye proizvodstvo, no. 10, 1965, 32-34

TOPIC TAGS: chromium steel, arc welding, corrosion resistance, ammonia, carbonate, sodium compound

ABSTRACT: OKh13 chromium steel warrants consideration as a substitute for nickel steels of the 18-8 type (containing 8-10% Ni) in the manufacture of equipment for the chemical, petroleum and other branches of industry. Since, however, the information about its corrosion resistance is relatively limited, the authors investigated this factor for manually and automatically welded joints of this steel as a function of the concentration of different chemicals as well as of temperature. To this end, 60x20x10 mm specimens were cut out of the welded joints of this steel, degreased, weighed, and placed in a reaction vessel with the corrosive medium, with subsequent removal and new weighing. Findings: The corrosion rate of the welded joints of OKh13 chromium steel is virtually identical with that of the base metal and is unaffected by the welding method (automatic submerged arc welding, manual V-welding, etc.)

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L 3270-66

ACC NR: AP5025611

OKh13 steel may be used in the manufacture of apparatus operating in solutions with NH_3 concentrations of up to 28%, $(\text{NH}_4)_2\text{CO}_3$ concentrations of up to 37%, NH_4HCO_3 concentrations of up to 17.5% at a temperature of 20°C; NaNO_3 , up to 47% at the temperature of its boiling point; NaOH and KOH , up to 50% at 80°C, and in the solutions of NaOH up to 20% at the temperature of its boiling point. Orig. art. has: 1 figure, 2 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, CC

NO REF SOV: 003

OTHER: 000

Card

2/2

I 38488-66 EWT(m)/EWP(v)/T/EWP(k)/EWP(t)/ETI IJP(c) WB/JD/HM/HW
 ACC NR: AP6019433 (A) SOURCE CODE: UR/0135/66/000/006/0037/0038 54
 AUTHOR: Maslov, V. A. (Engineer); German, V. T. (Engineer) 6
 ORG: none
 TITLE: Corrosion resistance of welded joints in stainless steels in some aggressive media
 SOURCE: Svarochnoye proizvodstvo, no. 6, 1966, 37-38
 TOPIC TAGS: corrosion resistance, welding technology, stainless steel, METAL JOINING
 ABSTRACT: The starting materials were stainless steels types Kh18N10T and Kh17N13M2T with a thickness of 6 mm. Sheets with dimensions of 400 x 100 x 6 mm were butt welded with type EA400/100 electrodes with a diameter of 4 mm. The opening between the edges was v-shaped with a truncation of 2 mm; the angle of the opening was $60 \pm 5^\circ$, and the gap 0.5-1.5 mm. A table shows the chemical composition and the mechanical properties of the basic metal and the welded joints. Samples were tested in a series of aggressive solutions. The results of these corrosion tests, at a temperature of 20-80°C, are also shown in a table. It can be concluded that steels Kh18N10T, and Kh17N13M2T and their welded joints have a high corrosion resistance in a number of

UDC: 621.791.052:620.193:669.15-194

Card 1/2

L 38488-66

ACC NR: AP6019433

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industrially important media. The rate of corrosion of these steels does not exceed 0.0162 grams/m²-hour. However, the rate of corrosion of steel Kh1810T is approximately 5 to 10 times greater than that of steel Kh17N13M2T in media containing chlorine ions. Orig. art. has: none.

SUB CODE: 11/ SUBM DATE: none

pb

Card 2/2

MASLOV, V.A.

Piezothermoplastics from sawdust and sulfate lignin. Der. prom.
14 no.5:17-18 My '65. (MIRA 18:6)

1. Karel'skiy institut lesa.

POBEZHIMOV, I., prof., general-mayor yustitsii; MASLOV, V., kand. yuridich.
nauk, polkovnik yustitsii

On the path of improving the training of judge advocates.
Komm. Voenush. Sil 46 no.15:42-46 Ag '65. (MKRA 18:9)

MASLOV, V.A., inzh.; GLADYSHEVA, L.F., inzh.; BABKINA, N.S., inzh.

Using resistance welding of sprayers and medical autoclaves
instead of gas and automatic welding under flux. Svar.
proizv. no.9:34 S '64. (MIRA 17:12)

1. Kustovoy otel svarki Donetskogo soveta narodnogo
khozyaystva.

GLUSHCHENKO, A.S., inzh.; MASLOV, V.A., inzh.; POLTORAK, P.A., inzh.

Converting the RR-600 cutters for operation on natural gas. Svar.
proizv. no.10:36 0 '64. (MIRA 18:1)

1. Kustovoy otdel svarki Donetskogo soveta narodnogo khozyaystva.

SAPIRO, L.S.; MASLOV, V.A.

Segregation of hydrogen in welds. Avtom. svar. 18 no.5:17-19
My '65. (MIRA 18:6)

1. Kustovoy otдел svarki Donetskogo soveta narodnogo khozyaystva.

1ST AND 2ND CROSS										3RD AND 4TH CROSS									
PROCESSES AND PROPERTIES INDEX																			
C MASLOV, V. D.																			
<p>Service of fire-clay and semiacid brick lining in US-arm ladle cast. V. D. Maslov. <i>Ognesopry</i>, 15 (7) 233-23 (1960).—The characteristics of fire-clay and semiacid brick were, respectively, as follows: strength 200 and 250 kg./cm.², apparent porosity, 21.4 and 22.8%, refractoriness 1620° to 1630°C. (both), SiO₂, 61.7 and 72.4%, Al₂O₃ 32.1% and not determined, and FeO, 1.62%, and not determined. The fire-clay lining lasted 60 to 61 pourings more than the semiacid lining. Loss of brick per ton of cast iron was 45% less for fire-clay than for semiacid brick. B.Z.K.</p>																			
A.S.M.-I.S.A. METALLURGICAL LITERATURE CLASSIFICATION																			
FROM SYNDICATE										SIGNI BOMART									
TODAY'S										TODAY'S									

TOMASH, K.K., inzh.; MASLOV, V.D., inzh.

Manufacture of magnesia-spinel refractories and their use in open-hearth furnace roofs. Stal' 23 no.1:20-22 Ja '63. (MIRA 16:2)

1. Zaporozhskiy zavod ogneporov i Gosudarstvennaya inspeksiya po sluzhbe i kachestvu ogneporov.

(Refractory materials)

(Open-hearth furnaces—Design and construction)

MASLOV, V. D.

"Cooperation between hydrometeorological services of the USSR and
Afganistan"

report to be submitted for the United Nations Conference on the
Application of Science and Technology for the Benefit of the Less
Developed Areas - Geneva, Switzerland, 4-20 Feb 63.

ACC NR: AP6035856 SOURCE CODE: UR/0413/66/000/020/0060/0060

AUTHOR: Somov, A. M.; Maslov, V. D.

ORG: none

TITLE: Mirror antenna feed. Class 21, No. 187099

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 60

TOPIC TAGS: Antenna, antenna feed, antenna radiation pattern

ABSTRACT: This Author Certificate introduces a feed for a mirror reflecting antenna. The feed is constructed in the form of a sectional or pyramidal horn with two parallel conductive plates fixed along two opposed horn walls. In order to extend the excitation of reflector edges and thereby to improve the effectiveness of widening the antenna's radiation pattern, these plates are placed such that the distance between them at the free end of the horn is smaller than at the horn opening. Orig. art. has 1 figure

SUB CODE: 09/ SUBM DATE: 30Sep65

Card 1/1

UDC 621.396.677.73

PROCESSING AND PROPERTY INDEX									
<p>MASLOV, V. G.</p> <p>CA</p> <p>16</p> <p>Formulation of soybeans and similar proteinaceous materials. V. G. Maslov, U.S.S.R. 68,061, Mar. 31, 1947. Soybeans, prepd. as usual, are steamed for 1-6 hrs. and then transferred into fermentation vats. In the latter, the mass is fermented by lactic acid bacteria and <i>Aspergillus oryzae</i> in a liquid medium at 32-40°. During fermentation sterile air is blown through the fermenting material. The starter is prepd. by cultivating <i>Aspergillus oryzae</i> on cooked rice or barley groats at 32° for 4-5 days, and then dig. it with sterilized mash. M. Hosh</p>									
<p>U.S.S.R. METALLURGICAL LITERATURE CLASSIFICATION</p>									
<p>FROM SYNOPTIC</p>									
<p>DESIGN MAP ON: G-1</p>									
<p>CLASSIFICATION</p>									
<p>DESIGN MAP ON: G-1</p>									

F

1404. REGULATING COMBUSTION IN STEAM BOILERS WHEN BURNING A MIXTURE
OF SOLID AND GASEOUS FUELS. Maslov, V.I. (Za Ekon. Topliva (Fuel Econ.).
Aug. 1951, 7-9). A system is described for ensuring correct proportions of
air with varying proportions of coal, coke oven gas and blast furnace gas,
by means of a nomogram. (L).

Subject : USSR/Engineering AID P - 2041
Card 1/1 Pub. 110-a - 14/14
Author : Maslov, V. I., Eng.
Title : ~~Collection of Instructions on the Maintenance of Boilers and Heating Installations.~~ Gosenergoizdat, 1954.
(Book Review)
Periodical: Teploenergetika, 4, 63-64, Ap 1955
Abstract : Criticism of the new edition of the book published in 1954 containing complete instructions on the maintenance of boilers and heating installations. The author lists the errors retained from the first edition and strongly recommends a revision and correction of the manual.
Institution: None
Submitted : No date

Maslov, V. I.

LEIFMAN, I.A., inzh.; MASLOV, V.I., inzh.

Firing anthracite culm in combination with the blast-furnace gas in the combustion chamber of a TP-230-2 boiler. Teploenergetika 4 no.12: 13-16 E '57. (MIRA 10:11)

1. Tsentroenergochermet.
(Boilers)

MASLOV, V.I.

AUTHORS: Leyfman, I.A. and Maslov, V.I., Engineers 96-1-4/31

TITLE: Experience of Operating High-pressure Boiler Sets on a Mixture of Blast-furnace and Coke-oven Gas (Opyt raboty kotloagregatov vysokogo davleniya na smesi domennogo i koksovogo gaza)

PERIODICAL: Teploenergetika, 1958, Vol.5, No.1, pp. 19 - 21 (USSR)

ABSTRACT: The Heat and Electric Power Plant (TETs) in a steel works has two boiler sets, type TП-170, operating at a pressure of 110 atm. and a superheated steam temperature of 510 °C. The boilers are practically identical and were designed for separate and combined combustion of pulverised lean coal and blast furnace gas. They are fitted with six pulverised-fuel turbulent burners of the type Babcock-Taganrog Boiler Works (TKZ), and six slot-type short-flame burners for blast-furnace gas.

The pulverised-fuel burners are used to burn coke-oven gas containing hydrogen sulphide. The initial arrangement of the burners shown in Fig.2 was unsatisfactory and was altered, as shown in Fig.3 to increase the turbulence of the gas flow and reduce the secondary air channels. Unlike the previous designs, the blast furnace gas burners were made with mixing

Card1/2

96-1-4/31
Experience of Operating High-pressure Boiler Sets on a Mixture of
Blast-furnace and Coke-oven Gas.

chambers and firebrick tunnels, as shown in Fig.4. The burner arrangement is described.

Initially, combustion of coke-oven gas was unsatisfactory but was corrected. The data for the two kinds of gas burner are given in Table 1. The combustion of sulphurous coke-oven gas necessitated protection of the air heaters against corrosion. These measures increased the outlet gas temperatures by 20 - 25 °C and were fairly effective, preventing corrosion in the tube. The thermal characteristics of the boilers are given in Table 2, showing an overall efficiency of 86 - 88% when burning a mixture of gases and 84 - 85% when burning only blast-furnace gas.

Baffles will be installed in the lower part of the air heater, shown in Fig.6. There are 6 figures and 2 tables.

ASSOCIATION: Tsentroenergochermet.

AVAILABLE: Library of Congress

Card 2/2

MASLOV, V.I., inzh.

Methods for determining the calculated humidity and the amount of
actually burned fuel. *Teplenergetika* 7 no.6:90-92 Je '60.

(MIRA 13:8)

(Heat engineering)

MASLOV, V.I., inzh.

Means of raising the economic efficiency of burning anthracite culls and lean coal together with blast-furnace gas under boilers in electric power plants of metallurgical plants. Trudy ENO chern. met. 20:183-191 '60. (MIRA 13:10)

1. TSentroenergochermet.

(Metallurgical plants)

(Boilers)

EPSHTEYN, Ye.I., inzh.; SMORODINOV, A.N., inzh.; BOCHAROV, D.I., inzh.;
BOCHKAREV, G.N., inzh.; Primali uchastiye: MURAV'YEV, I.T.;
MASLOV, V.I.; LOBANOV, I.I.; IVANOV, A.P.; IVANOV, L.I.

Start of converter substations with mercury-arc rectifiers without
sorting and forming of the rectifiers. Prom. energ. 18 no.9:32-35
S '63. (MIRA 16:10)

MASLOV, V.I., inzh.; FILIPPOV, N.D., inzh.

Special features in the flow of blast furnace gas. Prom. energ.
19 no.1:29-33 Ja '64. (MIRA 17:2)

MASLOV, V.I..

Features of the technology of deep drilling in permafrost distribution zones. Neft. khoz. 43 no.2:16-19
F '65.

(MIRA 18:4)

MASLOV, V.I., leytenant meditsinskoy sluzhby

Sensitivity of the microflora of wounds to antibiotics and antiseptics.
Voen.-med. zhur. no.3:84 Mr '56. (MIRA 9:9)

(WOUNDS--TREATMENT)

(ANTIBIOTICS)

(ANTISEPTICS)

MASLOV, V.I.

Method of intra-arterial blood transfusion. Khirurgiia 32 no.3:
77-78 Nr '56. (MLRA 9:7)

(BLOOD TRANSFUSION,
intra-arterial, method & appar. (Rus))

MASLOV, V.I.

Fat embolism of the mesenteric vessels [with summary in English].
Hirurgia 34 no.10:124-127 0 '58 (MIRA 11:11)

(EMBOLISM,

fat, of mesenteric vessels in fract (Rus))

(MESENTERIES, blood supply

fat embolism in fract. (Rus))

(FRACTURE, compl.

fat embolism of mesenteric vessels (Rus))

MASLOV, V.I.

Bilateral ganglioneuroma of the posterior mediastinum and retroperitoneal space. Vest.khir. no.4:103-106 '61.

(MIRA 14:4)

1. Iz 1-y khirurgicheskoy kliniki usovershenstvovaniya vrachev (nach. - prof. P.A. Kupriyanov) Voenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.

(~~MEDIASTINUM~~-TUMORS) (~~RETROPERITONEAL SPACE~~-TUMORS)

MASLOV, V.I.

Restoration of cardiac activity in acute cardiac arrest. Khirurgiya no.11:31-35 '61. (MIRA 14:12)

1. Iz khirurgicheskoy kliniki dlya usovershenstvovaniya vrachey No.1 (nach. - deystvitel'nyy chlen AMN SSSR prof. P.A. Kupriyanov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(HEART FAILURE) RESUSCITATION)

MASLOV, V.I.

Causes and prevention of acute heart arrest. *Khirurgia* no.9:67-72 '62. (MIRA 15:10)

1. Iz khirurgicheskoy kliniki dlya usovershenstvovaniya vrachey No. 1 (nach. - deystvitel'nyy chlen AMN SSSR prof. P.A.Kupriyanov) Voenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova. (HEART FAILURE)

MASLOV, V.I.; NOVIKOV, F.G.

Some complications following pericardiotomy. Vest. khir. 92 no.1:
98-102 Ja '64. (MIRA 17:11)

1. Iz 1-y khirurgicheskoy kliniki usovershenstvovaniya vrachey
(nachal'nik - prof. P.A. Kupriyanov [deceased]) Voenno-meditsinskoy
ordena Lenina akademii imeni Kirova, Leningrad. Adres avtorov: Lenin-
grad, K-9 prospekt Karla Marksa, d.5/20, Khirurgicheskaya klinika.

UVAROV, B.S., dotsent (Leningrad, prospekt Karla Marksa, 7, kv.7); MASLOV, V.I.

Treatment of patients immediately after resuscitation from clinical
death. Vest. khir. 92 no.3:38-42 Mr '64. (MIRA 17:12)

1. Iz 1-y khirurgicheskoy kliniki usovershenstvotaniya vrachey (nachal'-
nik - prof. A.P.Kolesov) i kafedry anesteziologii Voenno-meditsinskoy
ordena Lenina akademii imeni S.M.Kirova.

TOPIC TAGS: spectral analysis, emission analysis, correlation method, radar method, weak signal detection

ABSTRACT: The author considers a new method for increasing the sensitivity of emission spectral analysis. The method uses statistical reduction of the signal similar to what is employed for analogous purposes in radar for the detection of signals that are much weaker than noise background. (correlation method). In this method the time-invariant intensity of the spectral line is transformed into periodic sequence of radio pulses of 50 kcs frequency, while the

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ACCESSION NR: AP5010386

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APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032730014-0"

VERKHOVSKAYA, I.N.; MASLOV, V.I.; MASLOVA, K.I.

Effect of low radiation doses and incorporated natural radioactive elements on the spermatogenesis of *Microtus oeconomus* under natural conditions. Radiobiologiya 5 no.5:720-729 '65.
(MIRA 18:11)

1. Komi filial AN SSSR, Syktyvkar i Institut biokhimi imeni A.N. Bakha AN SSSR, Moskva.

AID P - 5469

Subject : USSR/Aeronautics - history
Card 1/1 Pub. 135 - 15/29
Author : Maslov, V. I.
Title : New exponents in the museum of N. E. Zhukovskiy
Periodical : Vest. vozd. flota, 2, 66, F 1957
Abstract : The author, director of the museum of N. E. Zhukovskiy,
in this short article mentions that a number of new
exponents have been received by the museum.
Institution : None
Submitted : No date

MASLOV, V.I., inzh.; RABINOVICH, Ya.F., inzh.

Control of pulverized coal supply to individual burners.

Teploenergetika 10 no.12:86-89 D '63.

(MIRA 17:8)

1. Tsentroenergochermet.

LUR'YE, I. S.; MASLOV, V. I.

Increasing the service time of winter roads; based on materials
collected in the Komi A.S.S.R. Mersl. issl. no.1:318-329 '61.
(MIRA 16:1)

(Sytyvkar region—Forest roads)
(Sytyvkar region—Roads, Ice)

MASLOV, Viktor Ivanovich; LEYFMAN, M.I

[Operation of boiler units in ferrous metallurgy enterprises] Ekspluatatsiia kotel'nykh agregatov na predpriatiakh chernoi metallurgii. Moskva, Metallurgiya, 1965.
295 p. (MIRA 19:1)

KLEBANOV, Boris Vladimirovich, inzh.; KUZ'MIN, Vladimir Grigor'yevich, inzh.; MASLOV, Vladimir Ivanovich, inzh.; LEONOV, I.S., inzh., retsenzent; SOROKIN, A.A., inzh., retsenzent; PILIPENKO, Yu.P., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Repair of motor vehicles and tractors] Remont avtomobilei i traktorov. Pod red. B.V.Klebanova. Moskva, Mashgiz. Pt.2. 1962. 301 p. (MIRA 16:2)

(Motor vehicles--Maintenance and repair)
(Tractors--Maintenance and repair)

MASLOV, V. M. Cand Med Sci -- (diss) "Dynamics of the morphological changes of the lungs during mechanical oraniocerebral trauma." Kursk, 1958.
14 pp (2nd Mos State Med Inst im N. I. Pirogov), 200 copies (KL, 14-58, 117)

-113-

MASLOV, V.M.

Dynamics of changes in the main argentophyllic fibers of the lungs following a mechanical craniocerebral injury. Sud.-med. ekspert. 3 no.1:13-15 Ja-Mr '60. (MIRA 13:5)

1. Kafedra sudebnoy meditsiny (zav. - prof. K.I. Khishnyakova)
Kurskogo meditsinskogo instituta.
(LUNGS) (BRAIN--WOUNDS AND INJURIES)

MASLOV, V.M.

Agricultural traumatism from the viewpoint of forensic medicine.
Sud.-med.ekspert. 6 no.1:55-56 Ja-Mr '63. (MIRA 16:2)

1. Kurs sudebnoy meditsiny (zav. - dotsent V.M. Maslov) Vladivostokskogo meditsinskogo instituta.
(AGRICULTURE—ACCIDENTS) (MEDICAL JURISPRUDENCE)

MASLOV, V.H.

Throttle pressure stabilizer for gases and liquids. Zav. lab. 22
no.8:1001 Ag '56. (MLRA 9:11)

1. Moskovskiy khimiko-tehnologicheskij institut imeni D.I.
Mendeleyeva.
(Pressure regulations)

MASLOV, V.N.

Production of zirconium and iron hydroxide of ~~colloids~~. Koll. zhur.
19 no.1:90-92 Ja-F '57. (MLSA 10:4)

1. Moskovskiy khimiko-tekhnologicheskoy institut im. Mendeleyeva.
(Colloids) (Zirconium organic compounds)
(Iron organic compounds)

MASLOVA, V.N.

YERMAKOV, V.I.; MASLOV, V.N.; STOLYAROV, O.G.

Application of high-frequency analysis to colloid chemical investigations. Koll.shmr. 19 no.2:198-200 Mr-Apr '57.

(MIRA 10:5)

1. Moskovskiy khimiko-tekhnologicheskii institut im. D.I. Mendeleeva.
(Colloids) (Electrochemical analysis)

MASLOV, V.N.

S/070/60/005/03/005/008

E132/E360

AUTHORS: Maslov, V.N. and Nabatova, L.V.

TITLE: High-temperature Gas Etching of Single Crystals of Germanium

PERIODICAL: Kristallografiya, 1960, Vol. 5, No. 3, pp. 470-472

TEXT: The method of etching by a gaseous reagent, such as Cl_2 , H_2 or HCl , is widely used in metallography and it was of interest to see whether high-temperature etching with such reagents would show up dislocations in germanium. Cl_2 and Br_2 were used here.

The Cl_2 was dry and free from O_2 to preserve the bright surface of the Ge specimen. At 450°C a dark-grey bloom was formed on the surface, which was almost insoluble in acids and alkalis in the cold. In the $500\text{--}700^\circ\text{C}$ range the layer was covered by a crust which was shown to be GeO_2 . Br_2 gave the same effects but in a less pronounced form. Cl_2 was passed over the specimen in a muffle at 10 cm H_2O pressure at $1 - 5 \text{ cm}^3/\text{min}$ for 1-10 minutes. The 111 Card1/2

S/070/60/005/03/005/008

E132/E360

High-temperature Gas Etching of Single Crystals of Germanium

face of n-type Ge was subjected to this treatment after chemical polishing. A graph is given of the time required to etch to 0.005 mm at various temperatures. For 7-10 min at 200 - 300 °C triangular pyramids were formed. Hexagons appeared at 400 - 500°. The etch figures were not uniform over the whole surface. Very small circular pits were also observed. Gas etching shows not only the places where dislocations emerge but also other surface defects (residues of the deformed layer after polishing with abrasive, traces of scratches, etc). Very high quality polishing is needed if these reagents are to disclose only dislocations. There are 5 figures and 4 references: 3 Soviet and 1 English.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskey promyshlennosti
(State Scientific Research and Planning Institute of the Rare Metals Industry)

SUBMITTED: January 5, 1960
Card 2/2



MASLOV, V.N.; OVODOVA, A.V. (Moskva)

Rectification of electric current at the boundary of ion-exchange
membranes. Zhur. fiz. khim. 34 no.2:413-415 F '60. (MIRA 14:7)
(Membranes (Chemistry))

24.5000

1051.1138 1273

0070

3/077/61/006/003/003/003
D045/D112

AUTHORS: Maslov, V.N. and Lishina, A.V.

TITLE: The effect of germanium sol on the light sensitivity and development process of photographic layers

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 6, no. 3, 1961, 229-231

TEXT: The authors investigated the effect of a highly-dispersed suspension of germanium on the light sensitivity and development kinetics of a photographic layer. Experiments were conducted on spectral photographic plates of the I type with a light sensitivity of 1.0 ГОСТ (GOST) unit. Germanium suspensions were prepared by trituration in mortar of monocrystalline P (R) and П (P) type specimens with a resistivity of 0.02 ohm·cm and 35 ohm·cm respectively under a layer of distilled water. The suspension was diluted in water and held for 4 days, after which it was poured off. The superficially opalescent hydro-sols, which did not contain particles heavier than $1/\mu$, were refined by dilution to a concentration of 10 mg/l (of germanium) and used for treating the photographic plates. One series of plates was treated with a germanium sol before exposure

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S/077/61/006/003/003/003

D045/D112

The effect of germanium sol on the light

and another - after exposure. Analyses showed that the treated emulsion layer contained an average of $1.6 \cdot 10^{-6}$ g/cm² of germanium. Exposure was conducted by the diffused light of an electric lamp under constant conditions. On each plate 6 bands subjected to illumination for different periods were obtained : 0, 10, 20, 30, 60 and 120 sec. The following sequence and conditions of treatment were chosen : a) soaking of the emulsion layer in distilled water - 5 min; b) treatment by the germanium hydro-sol by immersing half the plate in the mortar (the other half served as a control plate) - 10 min; c) rinsing in water - 10 sec; d) drying in the air in darkness (if treated with the sol before exposure) or developing (if treated by the sol after exposure); e) developing for 4 min in a metolhydroquinone developer. After developing, the plates were measured by an MΦ-4 (MF-4) photometer, and the coefficient of transparency K_{trans} of the exposed parts in relation to the non-exposed part of the control half of the plate was determined. In Fig.1 the curves of the change in the coefficient of transparency K_{trans} depending on the illumination period are presented. The curve *a* is drawn according to the results of photomeasuring of the control part of the plate. It can be seen that K_{trans} for the half of the film treated with germanium is considerably reduced in the region of large and average exposures, whereas in the region of zero exposure it

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The effect of germanium sol on the light

does not change. Fig.2 shows a set of curves of change of the relative coefficient of transparency of the control half of the plate and the half treated by germanium, $K_{rel} = K_{trans\ control} / K_{trans\ treated}$ depending on the time of development. The shape of the curves change with an increase in exposure. The sharp rise of all the curves on the left part of the graph is an indication of the catalytic effect of germanium, which accelerates developing. Control experiments, in which the germanium sol was replaced by distilled water, showed that this form of treatment had very little effect. The curve *a* indicates the increase in fog density during a somewhat longer developing period (5-6 min) and the sharp rise of the curves *1* and *2* in this field indicates the total effect of precipitating silver and particles of germanium as far as completeness of development is concerned. The curve *e*, corresponding to an illumination period of 2 min, clearly reaches a maximum, which indicates practically complete reduction of silver. The horizontal parts of the curves *1* and *2* show the discontinuation of the catalytic effect which is indigenous to the initial stages of developing, since for the given exposures and the developing period, the relationship of the coefficients of transparency for the control and investigated plates does not depend on the time of developing. The effect of a germanium sol in these cases is equiva-

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S/077/61/006/003/003/003

D045/D112

The effect of germanium sol on the light

lent to the effect produced by increasing the light sensitivity of a photographic emulsion. In Fig.3 are shown the curves of equal blackening, corresponding to the optical density $D=1$ and indicating the reduction in the required exposure upon treatment with germanium, depending on the time of developing. From Fig.3 it can be seen that upon treatment with a germanium sol after illumination the sensitivity of the plates increases by 2.3-2.5 times and that when germanium is introduced before exposure it is increased by only 1.2-1.5 times (during an identical developing period of 2-5 min). This may be explained by the change in the properties of the particles of germanium upon desiccation of the emulsion layer. However, storage of the dried-out plates for 5-10 days did not have any noticeable effect on this phenomenon. In this connection, it is evident that the observed effect was not produced by hypersensitization by water (Ref.2: K. B. Neblit, 'Fotografiya, yeye materialy i protsessy [Photography, its materials and processes], Gos. izd. 'Iskusstvo', M., 1958, str. 194) especially when it is considered that, according to the data of the control experiments, the soaking of the emulsion layer in water, as well as exposure by non-actinic light, do not affect the results of the experiment. The effect of increasing the light sensitivity was noticed also when using silicon and chrome sols, but on a considerably smaller

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S/077/61/006/003/003/003

D045/D112

The effect of germanium sol on the light

scale than with germanium. The high-resistance and low-resistance \square (P) -type germanium appeared equally active; germanium with a P-type conductivity was a little less active. On this basis, an assumption can be made as to the presence of a contact reaction, on the border of the silver bromide section and the particles of germanium, which leads to the intensification of the developing process. There are 3 figures and 2 Soviet references.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskey promyshlennosti (State Design and Planning Scientific Research Institute of the Rare Metals Industry)

SUBMITTED: July 16, 1960.

Card 5/7

36114

S/070/62/007/002/010/022
E132/E160

24,7100

AUTHORS: Maslov, V.N., Ovodova, A.V., and Nabatova, L.V.

TITLE: The study of monocrystals of n-type germanium by
the method of anodic etching

PERIODICAL: Kristallografiya, v.7, no.2, 1962, 271-275

TEXT: It is shown that anodic etching can be used for the comparative estimation of the quality of single crystals of n-type germanium from the degree of uniformity of the large and small scale distribution of impurities. A point of anodic etching corresponds to a place of local breakdown with lowering of the specific resistance. Crystals with a specific resistance of 2-30 ohm.cm were used with 0.1 M Na₂SO₄ as the electrolyte. Other electrolytes were tried, MgSO₄ being the most successful. Saturation current conditions were used. Anodic etching was compared with chemical etching by K₃Fe(CN)₆. It was expected that etching would correspond either to spots of lowered specific resistance where electrolytic breakdown is most probable, or to places with increased concentrations of acceptor impurities.
Card 1/2

The study of monocrystals of n-type .. S/070/62/007/002/010/022
E132/E160

There are 9 figures.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i
proyektnyy institut redkometallicheskey
promyshlennosti
(State Scientific Research and Design Institute of
the Rare Metals Industry)

SUBMITTED: December 12, 1960.

Card 2/2

S/070/62/007/003/026/026
E132/E460

AUTHORS: Maslov, V.N., Sokolov, Ye.B., Nabatova, L.V.

TITLE: Fractographic investigation of single crystals of germanium

PERIODICAL: Kristallografiya, v.7, no.3, 1962; 477-479

TEXT: Fractography is the examination of the formerly internal surfaces after a specimen has been broken. Quantitative measurements are, however, difficult. For semiconducting metals the character of the break depends on many factors, such as purity, temperature and rate of stressing. The usual plane of perfect cleavage in Ge is 111 and under suitable conditions mirror smooth surfaces can be obtained. There are often microsteps on the surface radiating in a fan from the point where the blow was struck. Examination of the cleavage surface can give information on the distribution of strains in the crystal. 15 Crystals of Ge grown under different regimes were studied. The twin structure and the presence of cracks, inclusions and internal strains were revealed. Microscopic investigation of the etched surface of the break showed that a large number of point defects and

Card 1/2

Fractographic investigation ...

S/070/62/007/003/026/026
E132/E460

dislocation loops were formed on brittle fracture of the single crystals of Ge. There are 5 figures. ✓

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i
proyektnyy institut redkometallicheskey promyshlennosti
(State Scientific Research and Design Institute for
the Rare Metal Industry)

SUBMITTED: September 29, 1961

Card 2/2

17.9100

12104
S/032/62/028/010/005/009
B117/B186

AUTHORS: Davydov, A. A., and Maslov, V. N.

TITLE: Microoptical method of determining the crystallographic orientation of germanium

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 10, 1962, 1209-1210

TEXT: The method described here makes it possible to examine etch patterns and beams reflected from the etched surfaces simultaneously. For this purpose, a device was designed, which consists of a binocular magnifier, a Fedorov stage, and a step-down transformer. The latter feeds a small electric lamp which replaces one of the eyepieces. The beam reflected from the sample is viewed through the other eyepiece. The Fedorov stage is screwed on a heavy metal support with adjusting screws. Thin sections up to 5 mm thick are put on the stage and larger samples under it. Small crystals are kept by magnetic holders. This device can be used to determine deviations of the surface under examination from the (111) face within the range $0 - 54^{\circ}44'$. The minimum size of crystals or grains whose crystallographic orientation is determinable

Card 1/2

Microoptical method of determining...

S/032/62/028/010/005/009
B117/B186

by the microoptical method does not exceed 1 mm^2 . The determination of the orientation of a prepared sample deviating from the (111) face by 30° takes 3 to 5 min at the most, but that of a sample with a greater deviation takes about twice as long. The orientation of crystal faces of individual, large etch patterns can also be determined in this way. A comparison with X-ray diffraction showed that the accuracy of the micro-optical method is $\sim 0.5^\circ$ and that it is determined by the degree of selectivity pertinent to the etching agent used. There are 2 figures.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i' proyektnyy institut redkometallicheskey promyshlennosti. (State Design and Planning Scientific Research Institute of the Rare Metals Industry)

Card 2/2

MASLOV, V.N.; NABATOVA, L.V.; NALIMOV, V.V.; NYUBERG, I.N.; OVODOVA, A.V.;
SLOBODCHIKOVA, R.I.

Presentation of the results of investigation of the structural
defects of germanium. Zav. lab. 29 no.10:1206-1211 '63.
(MIRA 16:12)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy
institut redkometallicheskey promyshlennosti.

L 16916-63

EWP(q)/EWT(m)/BDS AFPTC/ASD JD

S/076/63/037/004/006/029

AUTHOR: Davydov, A. A., Maslov, V. N.

TITLE: Method for detecting heterogeneities in the specific resistance of
germanium by the electrodeposition of copper

PERIODICAL: Zhurnal fizicheskoy khimii, V. 37, No. 4, 1963, 778-783

TEXT: The heterogeneity of distribution of admixtures throughout monocrystals of germanium and silicon is one of the main reasons for the varied parameters of semiconductor instruments and lowers the output of commercial products. Microheterogeneity of monocrystals can be determined by the electrolytic deposition of copper or another metal on a test sample. Using a pulse electrolysis regime the difference in the density of the precipitate caused by volumetric heterogeneities of the cathode material can be many times greater than when using direct current. The maximum coefficient of contrast of the deposition is obtained with pulse current wherein the interference from surface irregularities of the cathode and from gas formation is minimal. The design of the electrolytic cell is an important factor in the conduct of the experiment. The pattern of the deposition of copper is very sensitive to the geometry of the cell. There are 3

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S/076/63/037/004/006/029

Method for detecting heterogeneities in the ...

figures. The most important English-language source reads as follows: R. S. Smith, J. Electrochem. Soc., 108, 238, 1961.

ASSOCIATION: Gosudarstvenny nauchno-issledovatel'skiy i proyektnyy institut red-kometallicheskoj promyshlennosti (State Scientific Research and Design Institute of the Rare Metals Industry), Moscow

SUBMITTED: March 1, 1962

ard 2/2

ACCESSION NR: AT4040554

S/2564/64/004/000/0095/0100

AUTHOR: Maslov, V.N.; Pelevin, O.V.; Yepifanova, K.I.; Davy*dov, A.A.

TITLE: Crystallization of a film between germanium dendrites growing in parallel

SOURCE: AN SSSR. Institut kristallografi. Rost kristallov, v. 4, 1964, 95-100

TOPIC TAGS: germanium, germanium film, interdendritic film, film growth, germanium dendrite, germanium crystallization

ABSTRACT: The structure of interdendritic germanium films, grown in a symmetrical temperature field in a laboratory assembly with a melting capacity of 120 g of germanium, using argon as the atmosphere, was studied microscopically and metallographically. The assembly was suited for the preparation of 1.0-1.5 mm wide and 7-80 μ thick films at a rate of 60-90 mm/min at melt temperatures of 10-15C below the melting point. The process of crystallization of an interdendritic film is believed to consist of three stages: (1) the initial formation of the interdendritic film as an outgrowth of the base lamella from one dendrite into the interspace, until it merges with the parallel growing dendrite; (2) further

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crystallization of the interdendritic film; and (3) growth of the outer layers of the base lamella of the interdendritic film as a result of migration of atoms from the side surface of the dendrites. The minimum film thickness corresponds to the lamella thickness. Orig. art. has: 5 figures.

ASSOCIATION: Institut kristallografi AN SSSR (Institute of Crystallography, AN SSSR)

SUBMITTED: 00.

DATE ACQ: 02Jul64

ENCL: 00

SUB CODE: IC, EC

NO REF SOV: 000

OTHER: 007

Card 2/2

ACCESSION NR: AT4040556

S/2564/64/004/000/0113/0116

AUTHOR: Maslov, V. N.; Davy*dov, A. A.; Demenkov, N. M.; Nabatova, L. V.

TITLE: The twin structure of germanium dendritic bands

SOURCE: AN SSSR. Institut kristallografii. Rost kristallov, v. 4, 1964, 113-116

TOPIC TAGS: germanium, germanium monocrystal, germanium band, dendritic band, germanium dendritic band, germanium dendrite, germanium dendrite structure, germanium crystallization

ABSTRACT: This study was conducted to determine the characteristics of the optimum twin structure of germanium dendrites which would facilitate the preparation of uniform bands of considerable length. Dendrite bands 4 - 6 meters in length were grown at a rate of 80-100 mm/min from a melt brought to a temperature 10-13C below the melting point. The twin structure of the dendrite cross section was examined fractographically and microscopically. Additional etching by an alkaline etcher with potassium ferricyanide permitted comparison of the dislocation etching holes on the $\langle 112 \rangle$ plane with peculiarities of the twin structure. Lamellae which were 7 microns thick were found to be most effective. Twin

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structures, consisting of great numbers of lamellae differing greatly in thickness with closed layers which do not cross the band length fully, are the most susceptible to degeneration. Perfect lamellae without bends, steps and other signs of degeneration promote the preparation of long, thin, dendritic bands. Orig. art. has: 4 figures.

ASSOCIATION: Institut kristallografii AN SSSR (Institute of Crystallography, AN SSSR)

SUBMITTED: 00

DATE ACQ: 02Jul64

ENCL: 00

SUB CODE: IC, EC

NO REF SOV: 001

OTHER: 005

Card 2/2

DAVYDOV, A.A.; MASLOV, V.N.

Theory of the dendritic growth of germanium. Kristallografiia 9
no.4:472-476 J1-Ag '64.

(MIRA 17:11)

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